

### THE CIVIC SURVEY.

By C. HARRISON TOWNSEND [F.], Assistant Director, Civic Survey of Greater London.

**A**SURVEY on the lines I propose very briefly to describe deals with a town or city and its immediately outlying districts, and is naturally known as "Civic"; but the same kind of work could equally well concern itself with a neighbourhood mostly of a rural character. In this way it might embrace the consideration of a whole county, or even a group of counties, irrespective of any particular town or city centre, where the words "Regional Survey" seem best fitted to define the scope of the undertaking. What, however, at the present time is being more widely and particularly discussed is the *Civic Survey*, and it is the object and purpose of this that I hope to advocate, and to explain its scope and methods.

First, then, what is a Civic Survey? Secondly, why is it desirable—if not, indeed, necessary—to form one? And, lastly, granting the premises of its great utility, how is it prepared, and by what machinery brought into being?

In January last year the Professional Classes Sub-Committee of the Government Committee for the Prevention of Distress submitted to the Board of Education a scheme which had been prepared by the Architects' War Committee, in conjunction with other bodies. This, to quote their Report, had been drafted with a view to "employing, in a manner calculated to be of great service to the community, the energies of professional men who have lost their work owing to the War." They suggested that this end could best be attained by the organisation in various centres of the Kingdom of a series of Civic Surveys. They proceeded to give an explanation of what is meant by the term, followed by a general sketch or outline of the ground covered by such an undertaking.

According to the Sub-Committee's definition Civic Survey work consists in "collecting and recording, in an easily accessible manner, such data in respect of any city or inhabited area as are required in order to attain a complete knowledge of the whole of those interests upon the preservation or enhancement of which depends the welfare of the inhabitants." These facts and data cover the whole ground of a city's life and activities—its methods of governance, its manufacturing and residential conditions, its work and recreation, its health generally and diseases, its traffic and its climatic conditions. Particulars giving full information on these and many other necessary points are recorded, and it is this record that constitutes a Civic Survey.

The method by which this collected information can best be set forth is, without doubt, by means of diagrams. It is a commonplace that all statistics and figures "leap to the eye" and inform the enquirer far more rapidly in diagrammatic form than when presented in page after page of wearisome columns of figures, and it is astonishing to any but the preparer of diagrams to realise how many

seemingly unlikely subjects become amenable to this method, and, thanks to it, are presented to the student with simplicity and clearness.

In this way, then, would be set down, as constituting a Civic Survey, facts which, though perhaps at hand and not of themselves difficult to amass, have not hitherto been collected and presented in a form easy for reference and comparison. Again, by the same system of diagrams would be conveyed information hidden away from all but the few in Blue-books and Parliamentary Returns, or obtainable only upon making special visits to consult the documents of various local authorities, or which is waiting the investigation of the visitor at Somerset House or some other Government Department. This would be collected and made easy of comprehension to the enquirer by the help of graphic charts or diagrams.

So much for a broad and general outline of what constitutes a Civic Survey. But it may be well to point out here—and to emphasise—what it is not. It does *not* offer suggestions as to the development of any particular district, nor does it indicate schemes of amelioration of existing social conditions. Again, in many cases, it may be determined that it is not to include a consideration of antiquarian or archæological data, which have, as a matter of fact, most frequently been collected by other bodies existing for that purpose. The Survey neither dwells on things of the past, nor indulges in dreams or projects of the future, but its work is to present the facts of to-day of such a nature, and presented in such a shape, as to be of the utmost assistance to the student of the city as it is.

Starting, then, from the point that it is an ordered record of the corporate interests of a city, it should only be set in hand on the conviction of its manifest and supreme desirability—if not, indeed, its necessity. We ought to satisfy ourselves as to *why* a Civic Survey should come into existence.

In a wide and general sense “such a record stimulates the individual citizen to take a wider interest in his city as a whole,” and makes him aware of those assets of which he has a right to boast, and at the same time brings home to him, by direct and comparative means, the defects in its existing arrangements which it is either wise or necessary to rectify. Thus, for instance, there may be in the air a suggestion for the improvement of the city—say, by the extension of its boundaries—giving occasion for the consideration, as a new problem, of this added area, and of its most effective treatment. Or it may be, again, that it is proposed to modify the internal and central arrangement of the city, and to re-plan and reconstruct its thoroughfares and open spaces, so as to add to its convenience for civic life, and to increase those amenities of which the citizen should be proud. In either of these cases the Survey would be of invaluable service. It would enable the technical adviser proposing to carry out improvements, either in town or outlying districts, to have at hand all the necessary data for the preparation of the scheme. This information would be full, and recognised as official, and would provide material equally serviceable not only for those responsible for the original proposals, but also for those criticising these, and offering other suggestions or alternatives. Its facts would be at the service of all, and—a point of much importance—they would have been collected and recorded by a body possessing the recognised authority to make the investigations. Thus the work would not have been made difficult by the refusal of facilities on the part of unfriendly and unwilling officials, or by the suspicion of private property-owners. Again, gathered, as the data would be, at a time when no immediate proposal as to the possible acquisition of land was under consideration, the element of speculation on a rising value of the property affected would be eliminated. That this is a very real danger is within the experience of anyone who has had to do with schemes of town development. It is always to be found that one has no idea of the extraordinarily high value of a property till the town surveyor appears on the scene to survey it with a view to a scheme of town improvement.

As to what further would be learnt from the Survey—the standard by which its importance and usefulness are to be measured—the list is a long one. It would give, in special diagram, particulars of the existing open spaces, and show the sufficiency or otherwise of their provision in the light of the greater or less needs of the neighbourhood, and would be a basis for considering additions to their size

and number. The enquirer interested in the subject of town traffic would be able to see how well or ill the question was met, and would find recorded the provision of travelling facilities by railway, tram or motor-bus, with the number of passengers, and the amount of goods carried by each system. The Survey would show, on a number of other diagrams, how, in various districts of the city, the need was met for public baths, or for free libraries, or for places of recreation, or for schools, and would help to the consideration of whether their provision was in proportion to the number and needs of the inhabitants of a certain district.

To the investigator of social conditions various diagrams would indicate, by tints, the density of population in various areas, either manufacturing or residential in their nature, and would make plain the extent to which congestion and poverty and various diseases co-exist. Such statistics as those gathered by Mr. Charles Booth with infinite labour and at his own individual expense, and set forth in his monumental work on the poverty of London, would be prepared by properly instructed investigators, and presented, not by columns of figures, but by the more easily realised method of the rest of the Survey.

In this way, also, for the pathologist and physiologist would be provided information of high value. For them the geological formation of the land and the latter's utilisation, and the altitudes above sea level, would be given, as being of high value in their bearing upon the birth and death rates. The meteorological conditions, and their relation to deaths from various diseases, would be set forth by means of charts, showing, by a well-devised system, the rainfall, the prevailing winds, the duration of sunshine, the barometric and thermometric records, etc. The prevalence, again, in a given area of a particular disease, and the extent to which the development of the district—by a system of drainage, for example—can lead to its decrease, would be recorded. Finally, in connection with this group of questions, diagrams would show at a glance the returns of population, and of births and deaths, which now have to be studied in that very quagmire of figures, the Census records and the statistics of the Registrar-General.

Holding an important place amongst these graphic records would be a series dealing with the forms and areas of governance of the city and the districts at its fringe. This would show their division into Civic or Borough, Urban or Rural Districts and Poor-law Unions, with the populations and other particulars of these, and would include diagram information of the Police Districts and the various Police Courts and County Courts. In addition, the Water, Gas and Electric Power systems, and the Fire Brigade Stations and their Calls would also be separately indicated.

If we look upon an area of land as capable, for purpose of illustration, of being discussed in terms of physiology we might say that—taking its geological formation (what is called "Solid Geology") as the bone structure, and the overlying features, the "Drift Geology," as the muscular and fleshy covering—the epidermis may well find an equivalent in the utilisation of the land-surface of this particular area. The traffic arrangements, in their turn, may be considered as finding their analogy in that wonderful system of arteries and veins the efficient working of which is an absolute essential to the life of the organism. This important side of civic life is beginning to be properly considered, and it is being recognised how large a bearing it has on the development of the city. Especially is this so in respect of those whose daily occupation lies within its business or manufacturing centre, and the ease or difficulty of their access to the fringe of suburbs or semi-rural districts in which they have their homes. A detailed statement of the systems of railways, tramways and motor-bus routes, and the extent to which they are severally used, forms a necessary and useful part of any thoroughly treated Civic Survey.

As to the ultimate destination of this collection of varied civic information, this is for each centre to decide upon for itself. The Professional Classes Sub-Committee, whom I have already quoted, suggest holding, at a central municipal building, an exhibition of these diagrams of so much interest to the citizen. The further proposal is that they should form a principal exhibit in that Civic Museum

which is advocated by Mr. H. V. Lanchester and others as a greatly to be desired feature in every town and city. Failing this, the Survey would, I imagine, be housed in the town hall or public library, or in some other place easy of access, where it would be properly indexed and catalogued, waiting the enquiry of the civic student.

With regard to our own Civic Survey of Greater London, in the initiation of so new an enterprise, and for devising methods and a system for its effective carrying out, much time and consideration were given by those earliest concerned in it to preliminary enquiries and consideration. It is felt that the result will be of use to those engaged in a similar undertaking in other parts of the kingdom, and that a body of precedents has been collected which will lighten their work.

If the formation of Civic Surveys is a movement at present only in its infancy, but, as is to be hoped, one destined to be of wide extension, it is evident that the usefulness of these various records would be largely increased by working, wherever possible, along the lines of a scheme framed upon a basis common to all. This principle would involve an agreed uniformity, so far as circumstances allow, with regard to the ground covered by the Survey, the system adopted for collecting the facts and information, and—very particularly—the methods used for recording and displaying them. Those concerned in preparing the Civic Survey of Greater London—the first undertaking of the kind—have, in scheming-out their work, been careful to bear in mind the need and usefulness of such a co-ordination, and it is much to be desired that it will also be an admitted principle in all other civic centres.

## STRATFORD PLACE.

By ARTHUR T. BOLTON [F.R.A.S.]

[By the kind permission of *Country Life*, the copyright illustrations and this article are reproduced from the issue of 4th March 1916, with additional technical details and facts throwing light on the design and history of this famous Place.]

**S**TATFORD PLACE is by tradition so strongly associated with the brothers Adam that it is with something of a shock that those interested will learn that evidence in proof is hard to discover. The fact that no sketch or drawing relating to this work is known to exist at the Soane Museum, in the great mass of the Adam drawings, is not of itself by any means conclusive if other evidence could be obtained.

Before describing No. 3 Stratford Place in particular—some interiors of which are now illustrated—it will be as well to give the generally accepted account of the origin of this fine building scheme: "Stratford Place was laid out in 1773 by Robert Adam for the Hon. Edward Stratford, who four years later succeeded his father as Earl of Aldborough. He was born in 1736, and in 1774 he was elected M.P. for Taunton. That he was a man of various attainments is shown by his election as F.R.S., and Hon. D.C.L. in 1777.

" His talents had been made the most of by a literary education on which he seemed to value himself. His *Essay on the true interest of the Empire*, maintaining that England would benefit by the loss of the American colonies, was noticed by Walpole as 'a foolish and contemptible pamphlet.'

" He had married, in 1765, Barbara, only daughter and heiress of the Hon. Nicolas Herbert, of Great Glemham, Suffolk. His wife's money invested in estates in England enabled him to buy land north of Oxford

Street and lay out Stratford Place with a fine house for himself at the upper end. This was Aldborough House, afterwards Stratford House, and now Derby House.

" His Countess died in 1785, and the Earl then let the house, but marrying another heiress two years later he was enabled to build a further house for himself at the side, and to complete the range of buildings. The second wife was Elizabeth, only daughter of Sir John Henniker, Bart. Lord Aldborough built Aldborough House, Dublin, between 1796-8, but it was unfinished at his death in 1801. Previously in 1775 he had founded the town of Stratford-upon-Staney in Ireland, building 400 stone houses with a church and chapel.

" On the Countess's death in 1802 the London estates went to the Earl's nephew, the Hon. John Wingfield, son of Viscount Powerscourt, who assumed the name of Stratford. He lived many years in Stratford Place."

The above is the substance of the account given by the Georgian Society of Dublin in their account of Aldborough House, Dublin.

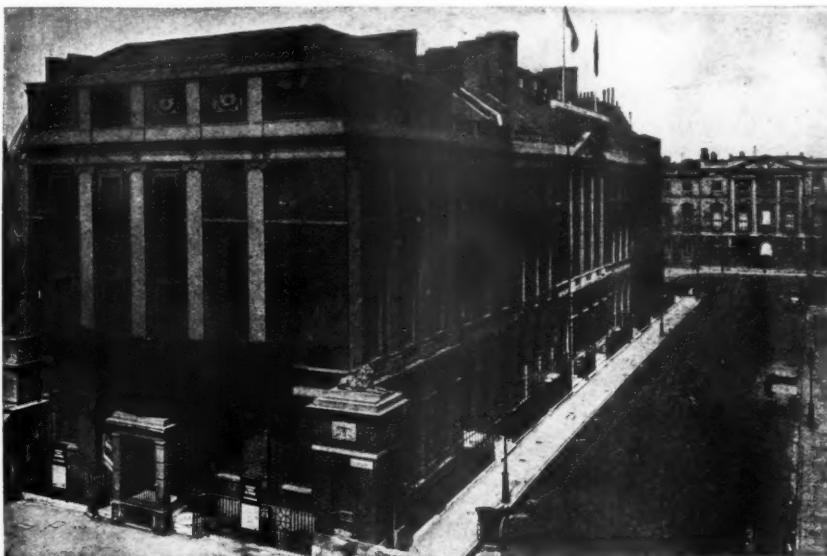
Glemham, the home of the first heiress, is in the neighbourhood of Bury St. Edmunds and of Great Saxham, where Robert Adam had friends and had carried out work. Apart from this rather slender point there is no apparent authority for the statement that Robert Adam laid out Stratford Place.

There are two plans bearing on our subject in the Crace Collection at the British Museum, both tracings of originals. One of them, a general outline, is endorsed, "This is supposed to be a plan of 1772 before the buildings were erected," and bears a further note : "Copy of Mr. Lister's plan which he says was taken before the Aire Brook was covered in June 3rd, 1779." The other plan is to a larger scale and is signed "Jas. Feltham, June 2, 1779." It shows Earl Poulet's house on the west side (now No. 19 and a club), with vacant plots on either side. Lord Newhaven is marked to the north and the Earl of Yarborough to the south, the latter having the frontage to Oxford Street. This second plan appears to have been made to show the sewerage arrangements.

The City Authorities have kindly allowed me to see the original lease and documents relating to this property, and I am now able to give the authentic history of Stratford Place.

The original petition, seeking a lease of the land, came before the Common Council, 5th June 1771, and was referred to a Committee.

The original contract was signed 20th November 1771, while the actual lease is dated 12th May 1772. The Hon. Edward Stratford, of Dean Street, Soho, eldest son and heir-apparent of Lord Baltinglass in Ireland, contracts with the City, in consideration with all convenient speed to erect good new substantial dwelling houses, and other buildings of brick and stone, of such extent, elevation, form, and manner of



STRATFORD PLACE.

As is well known, Stratford Place was built on land belonging to the City Corporation. On it were conduit heads or reservoirs in which were collected water from the numerous springs in the locality for the supply of the City conduits. On the occasions of their periodical inspections the Lord Mayor and Corporation used to dine at the Banqueting House on the site. This building, together with the conduits, is shown on a site plan, also in the Crace Collection, a survey made by J. Peacock for George Dance and dated 5th May 1772. James Peacock of the Guildhall in 1785 was the author of an anonymous little work called *Oikidia or Nutshells*, which contains an amusing skit on Adam's style. The houses in Stratford Place are let upon Corporation leases, which being perpetually renewable are commonly regarded as equivalent to freeholds.

finishing as are described on two drawings, or designs, deposited in the office of the Comptroller, and signed by him, and shall and will lay out the full of £40,000 in erecting the same.

By a petition of 11th March 1772 the Hon. Edward Stratford states that he "has in pursuance of his grant entered into treaties with Sir Thos. Edwards, Mr. Pepys, and the Commissioners of the Streets for purchasing, renting, or exchanging ground as shall be agreed on, in order to enlarge and square the angles of the site, for which Heads of a Bill are preparing for Parliamentary sanction."

"That he had several plans of the whole and particular parts taken in order to see which is most likely to succeed, which plans are to be exhibited for public approbation at the opening of the Royal Academy,

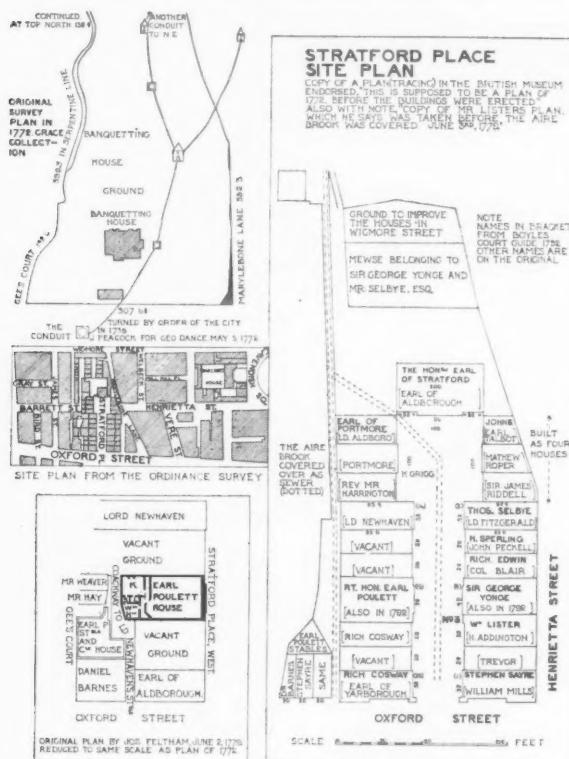
and has given frequent attendance and been at considerable expense and trouble in forwarding these matters."

On the 8th of April of that year the Hon. Stratford attends with Mr. Stokes, his attorney, and produces a plan and elevation of the intended buildings, "which elevation not being strictly agreeable to that produced on his treaty for the ground, yet he observed would produce a very elegant appearance and be as substantial and useful buildings as the other."

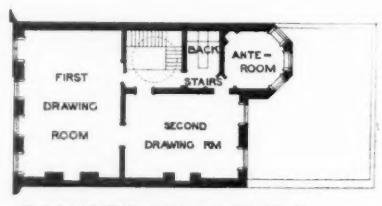
Apparently George Dance, Junior, the City Surveyor, had advised the Committee that the buildings

the Committee for the Hon. Stratford, but also writes two letters on his behalf relating to some question of drainage. It will be noticed that Edwin's name is given on the plan illustrated as the owner of the fifth house on the east side.

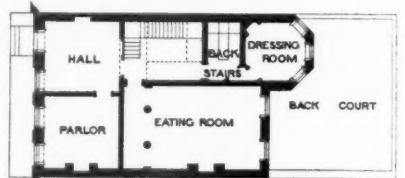
Sir John Soane, R.A., had the pleasing habit of keeping his annual Royal Academy catalogue, and Mr. Walter Spiers, F.S.A., the Curator of the Soane Museum, has kindly given me a note that Stratford Place was never exhibited there as proposed. It may have been sent and rejected, as quite likely it was not orthodox enough for Sir William Chambers, R.A.



STRATFORD PLACE OXFORD STREET W  
THE HON EDWARD STRATFORD  
RICHARD EDWIN  
1772-5



PLAN OF PRINCIPAL FLOOR NO.3



PLAN OF GROUND FLOOR NO.3

on the proposed plans were likely to cost £50,000 instead of £40,000, which goes to show that he had at any rate no part in their design. The Committee record "that as to the elevation of the buildings we were of the opinion that it was not very material providing the sum of £40,000 was laid out in erecting good substantial dwelling houses and other buildings."

Unfortunately, the deposited plan and elevation, signed by Stratford and deposited with the City, have disappeared, and this perhaps conclusive evidence is wanting.

Mr. Richard Edwin, surveyor, of No. 29 Portland Street, Oxford Road, not only attends a meeting of

It appears, however, that Richard Edwin, of No. 29 Portland Street, Cavendish Square, was an exhibitor in 1776, when he sent a "Longitudinal Section of the Concert Room in Hanover Square," while in the following year he contributed a "design for a villa in Surrey."

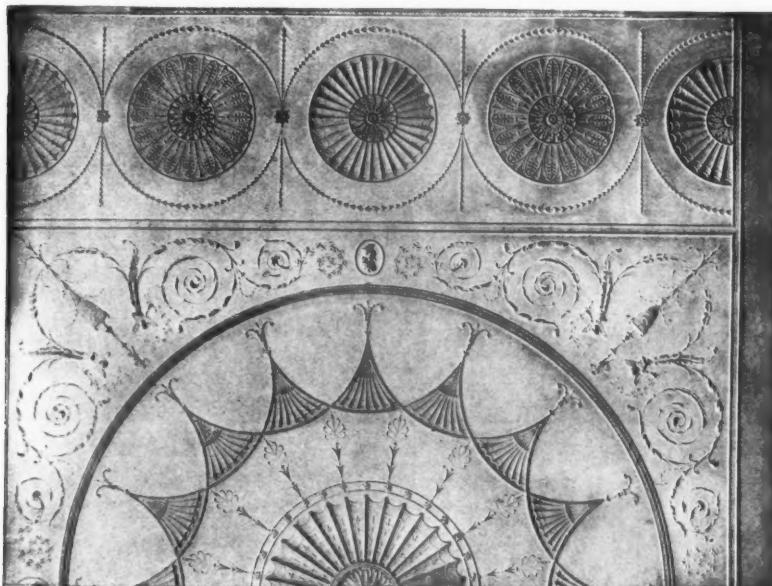
Nothing appears to be known otherwise of him. It is possible to speculate that he was related to the Edwins, well-known actors of the time. They had a distant relation in George Street, Hanover Square, who left his fortune of £30,000 to charity.

The lease plan itself shows only the outline of the site as given by the survey made by J. Peacock for

George Dance, Junior, 5th May 1772. There is a for the time being. The lease, perpetually renewable, stipulation in the lease that the said buildings shall be was for sixty-one years, wanting eleven days, the first



BACK DRAWING ROOM CEILING, NO. 3 STRATFORD PLACE.



FRONT DRAWING-ROOM CEILING, NO. 3 STRATFORD PLACE.

subject to the approbation of the Committee, and two years being at a peppercorn, the remainder, fifty-nine years, at £160 per annum, with a fine at each re-

under the inspection of the Clerk of the City's Works

newal, every fourteen years, of five years' ground rent, i.e., £800.

A petition of July 1773 from Stratford and his tenants confirms the names given on the plan for six of the houses on the lower eastern side. Stephen Sayre, it appears, was a Sheriff. There are two names in the list, Daniel Barnes and George George, which are not on the plan. This petition re-

manner of that age, was that Stratford, on signing the contract with the Comptroller, placed £20 in the box for the poor.

The first plan, that of the entire estate now illustrated, is naturally the most interesting. It shows the site of the large house at the end as belonging to Sir George Yonge and M. Selby, Esq. At the extreme point the odd balance of the site is marked "ground to improve the houses in Wigmore Street."

To a copy of this plan I have added, under the original names given, those of the occupants, or owners, as they appear in the first edition of *Boyle's Court Guide*, that of 1792. It will be noticed that in the square at the upper end of Stratford Place four houses have been built on either side, instead of only three as first intended, and shown on the early plan. The present owner of No. 3 has very kindly allowed me to make plans of that house, which will give an excellent idea of the size and distribution of the rooms, and of the general character of the planning throughout.

By this period Robert Adam had already been at work in London for fifteen years, and imitators had sprung up and were much in evidence. The Adelphi had been started in 1768, and had attracted immense attention by its misfortunes as much as by its merits. It was an object lesson in estate development of a public character. It may be recalled that in 1771 the City had engaged in a sharp contest with the Adam brothers on the subject of the river frontage of the Adelphi; a special Act of Parliament was passed despite their formal protest deciding the question in favour of the latter. The general idea of the design of the great house at the end of Stratford Place, however, is that of Lansdowne House, which was in hand at least as early as 1765-6.

Stratford Place as laid out represented, till within memory, the achievement of a completely symmetrical plan, extending from Oxford Street back to the main house, which closed the vista in a monumental fashion.

There are two brick gateway piers crowned by lions at the entrance, and originally there were railings and gates across the street. The eastern block facing Oxford Street was some years ago replaced by a modern bank in red granite and stone. Fortunately, it is not now intended to repeat this block on the other side; but in a necessary rebuilding of the western block the old design, materials, and details are to be followed.

The low wings of what is now Derby House, once of a single storey, were raised at a later period to a double colonnade, and again a few years ago this characteristic and valuable feature of the scheme was entirely obliterated by further extensions. Otherwise the



FIREPLACE IN FRONT DRAWING-ROOM, NO. 3 STRATFORD PLACE.

lated to the drainage difficulties of a site so full of springs.

In 1774 there was an inspection, when the Committee saw several houses and found them not conformable to the said drawings. Stratford, while admitting that to be the case, said that they were superior, and produced drawings showing the finish intended.

Probably in 1776 the first block of houses were all completed, as there are no entries in the Journals of that year, nor any subsequent record of any further inspection. An interesting incident of the grand

general distribution of the Place remains the same. As an instance of a complete piece of town planning of the eighteenth century, it is almost unique in London.

As we have seen, the lower part of the eastern side of Stratford Place was first built, and displays more brick-work and less stucco than on the western side, as is evident in the ground floor arcades. The houses in the square followed later; but there has been a good deal of alteration at this end, a fact which adds to the difficulty of following out the actual development of the scheme.

The house illustrated, No. 3 on the eastern side, has, as will be seen by the plans, Adam-like characteristics in general idea, but the detail of the planning is not personal to him.

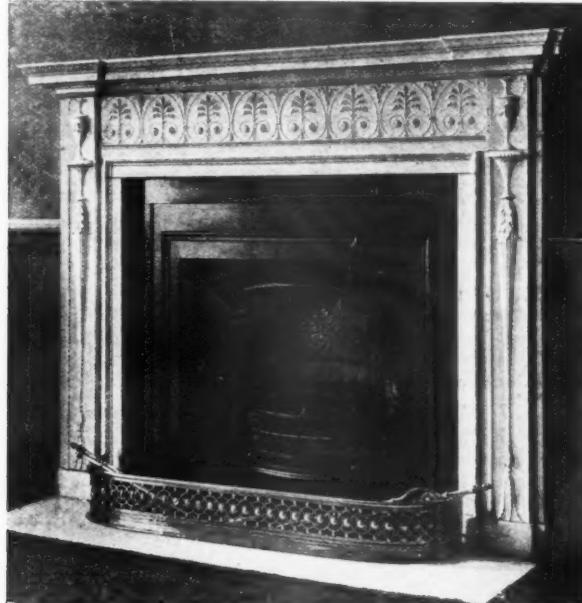
In the Hall we miss the Adam lead fanlights. In the "Eating Room" the Ionic capitals of the columns are somewhat clumsy in profile, and the ceiling and frieze do not show Adam's peculiar gift of a perfect distribution of ornament. On the first floor the notable first drawing-room has a marble mantel rather of the Wyatt type, while the intersected treatment of the ceiling is again not personal to Adam. The arrangement of the doors is a point to be noted. Rising in height nearly 9 feet for the door between front and back rooms, at the corresponding door to the staircase that same high level for the doorhead is only obtained by means of a dummy. It is rare for Adam to exceed the usual scale for a six-panel door. The same remarks apply to the back ceiling and mantelpiece, which are good examples

of work in Adam's manner, "Adamitic," as Walpole calls it, rather than Adam in style.

The fine pierced steel fender in the front drawing-room comes by direct pedigree from Mrs. Montagu's great house, and may therefore have been designed by James Stuart.

The Octagon Room is well contrived; it has a plain ceiling and a cornice, the latter profiled with a hollow, which is not at all Adam-like. The fine mahogany doors with some of the original mountings are a feature of the house. The metal handrailing of the staircase is rather of the earlier type.

On the other side of Stratford Place the corner house (No. 16) raises less doubts. The mantelpieces of inlaid marbles do not resemble Adam's own work, and there are features in the plasterwork which are certainly not his. It is quite possible that the plasterers and others had a wider range at Stratford Place than would be the case on Adam's own buildings. Robert was exceptional for his age in the minute care he bestowed on such matters, and for his prodigal powers of invention. The general impression left by Stratford Place is that it was set out on lines which Adam had invented and established, and that his style of decorative finish was also followed with considerable fidelity. But on close examination the work shows itself as that of followers, rather than of Robert Adam himself. It is perhaps a tribute to the Hon. Edward Stratford and R'chard Edwin that their work has so often, and so persistently, been ascribed to Robert Adam.



FIREPLACE IN BACK DRAWING-ROOM, NO. 3 STRATFORD PLACE.

## REVIEWS.

## HOSPITAL CONSTRUCTION.

*Construction, Equipment and Management of a General Hospital.* By Donald J. Mackintosh, M.V.O., M.B., LL.D., F.R.S.E. Roy. 8o. 1916. Price 15s. net. [Wm. Hodge & Co., Edinburgh and London.]

At no time in the history of our country has the demand for hospital accommodation been so great as at present. In order to cope with the large number of disabled and wounded men returning from the seat of war it has been necessary to erect hospital accommodation in all parts of the country, and unfortunately, it is to be feared, the limit has not yet been reached. It is true these buildings, or at all events the majority of them, are more or less of a temporary character; nevertheless it is essential that they should be so planned and equipped as to give the best results, both from the hygienic and medical points of view, and administered so as to secure the utmost economy, consistent with efficiency. The timely issue, therefore, of the new and revised edition of this excellent work is most welcome.

The author has for many years made a special study of the planning and arrangement of hospitals, and his long experience as Superintendent in one of the largest general hospitals in the country has enabled him to treat the subject in a manner which will appeal strongly to the architect engaged in hospital planning and construction.

The importance of economy in management and administration is duly emphasised, and the author's views thereon will be found to be of considerable value to all those entrusted with the management of hospitals, particularly in these times when every year sees the cost of administration and upkeep expanding, while the income is stationary, and in many cases shrinking.

A commendable feature of the work is the method and arrangement adopted in describing the various parts of the hospital. Beginning with the admission block to a general hospital, the reader is led into the building, so to speak, and conducted in progressive stages from unit to unit, by which means he becomes conversant with the everyday work of a hospital, and an intelligent idea is conveyed of the relationship one department bears to another.

In the opening chapter, the importance of the admission block is set out and its purposes defined. It is here that patients of all kinds are received and examined, and thereafter transferred to the wards suitable for each particular case. The author deprecates a makeshift arrangement for this department, as is sometimes done by placing it in the basement or in any other available space which conveniently offers itself.

The admission block may either form part of the main building or be erected as a separate structure. In the latter case, it is desirable that it should be

connected to the main building either with a covered way or subway. The planning and general arrangements of this block are described at length, and many small, though important details, which are too frequently passed over, but which make for the comfort of the patient and the efficiency of the establishment, are referred to and explained.

Two typical plans of admission blocks are given, together with several photographic prints of the interior showing the fittings and equipment, all of which are very fully described in the text. These plans show, in addition to the admission department, accommodation known as emergency wards. These are provided for noisy or intoxicated patients, and being in a detached building, the wards in the main hospital are prevented from being disturbed.

The author deals very fully with the duties of the staff and administration of this department, and the procedure to be adopted in dealing with patients brought in, or who present themselves for admission. Various forms of "records" for use in the admission block are given, by means of which a complete record of the daily work treated in the department is duly registered.

The medical and surgical ward units are dealt with at considerable length. Every ward in a hospital is accompanied by a group of smaller apartments which together with the main ward make up the unit. Each of the smaller apartments is designed for a specific purpose, and serves its particular function in the working of the unit; its position in the plan is therefore important. The function and purpose of each room are carefully explained, and its special arrangement and equipment are entered into with considerable detail.

The necessity for a "Return Patients' Room" is duly emphasised as forming an essential part of the unit. Patients who have left the hospital, but whose cases require examination and attention for some time after, return to the hospital for this purpose. It is not desirable that such patients should be placed in the beds of the main wards simply for examination, hence the importance of setting apart a room for this special purpose. It is recommended that a bath be provided in conjunction with this room, so that patients who have just come from their homes can, if necessary, be bathed previous to being examined.

With regard to the patients' bathrooms attached to the main wards, the author advocates the placing of these at the entrance end of the ward, instead of, as in many hospitals, in one of the sanitary towers at the extreme end of the ward. Opinion seems to vary on this point. Both positions have their advantages and disadvantages. With the bath in the former position it is possible to bathe the patient before he enters the ward, although in many cases the condition of the patient will not permit of this being done. On the other hand, when the bath is situated in the sanitary tower patients do not require to pass into

the working corridor of the unit every time a bath is required, and it allows of the piping for water supply and wastes being more concentrated and simplified.

Matters such as windows, doors, wall linings, and floor materials, are dealt with in a practical manner, and throughout the text there are numerous illustrations showing the fitting up of the various apartments, while two clearly drawn plans, to a good scale, are given, showing the arrangement of the medical and surgical ward units respectively.

The sanitary towers are important adjuncts to every ward. In the plans illustrated these project at an angle of 45 degrees, with a balcony of ample width extended between. In one tower are placed the sanitary fittings for patients, while the other contains nurses' wash-hand basin and bed-pan washer and rack, the practical arrangement of the latter being shown by a photographic reproduction.

Dealing with floor space, the author points out that a hospital with a medical school attached requires a greater area per bed than a hospital without such a school, for the reason that in the former the major part of the clinical instruction is given in the wards, hence the additional floor space is desirable. In a teaching school the minimum cubic feet per bed should be 2,000, with a minimum floor area of 150 square feet per bed.

On the surgical side the necessity of providing an operating theatre for each surgical ward unit in large hospitals is dealt with, and the operating theatre itself and its equipment are explained at considerable length. The construction and equipment are clearly shown in a series of photo reproductions, as well as by a plan drawn to scale. The theatre illustrated is designed for teaching purposes, and shows a gallery for students, in horseshoe form. The staging and seating of the gallery are cleverly arranged so that students can enter or leave the theatre without disturbing the operating area. The studied severity of all details is very marked, and imparts an exceedingly smart and businesslike appearance to the apartment.

Numerous illustrations of fittings for theatres, sterilising apparatus, and other equipment of the most modern and approved type are given.

The artificial lighting of an operating theatre requires special attention, and the author points out the undesirability of having any fitting hanging directly over the operating table. All fittings should be at the side, with adjustable reflectors, and should be wired from two distinct and separate supplies, with automatic control, so that in the event of one supply failing the other is automatically and instantaneously switched on. Where separate supplies are not available a battery should be provided as a stand-by. The necessity for such an arrangement in an operating theatre is obvious.

The special units dealing with diseases of the throat and nose, gynaecology, burns and septic cases are described, as also the methods of administration

in connection with the nursing and ward maids' staff.

As regards the resident medical officer, the author has strong leanings to the arrangement which provides that officer with a suite of apartments directly connected with the ward unit under his charge, in preference to that where the accommodation for the resident staff is centralised, and states at considerable length the advantages and disadvantages of the two schemes. As the particular arrangement adopted materially affects the entire plan of the hospital, it is important that it should be considered and decided from the commencement of the lay-out. The author undoubtedly makes out a very strong case for the accommodation being contained in the ward unit, not only from the resident's point of view, but also from that of the hospital itself.

Here he has the strictest privacy. He has facilities for work when not required in his wards. There is no unnecessary intrusion upon, or unwelcome interruption of, his studies. His apartments are to all intents and purposes his home. He can see his friends in his own sitting room, and when he wishes the company of his colleagues he can obtain this either in the common dining room or billiard room, or by making arrangements for visitation. This is entirely under his own control. The benefit to the hospital is even greater. The main object in having a medical officer in residence is that the services of a qualified medical man, familiar with the details of each case, shall be available at the shortest notice. . . . Where the resident's quarters are within the unit he is always on the spot when a critical case is under his care, and yet need not hang about the wards awaiting developments.

The outpatients' department, hospital kitchen, laundry and washhouse, nurses' home, are all fully dealt with and described in detail.

Chapter XII. is devoted to the construction of hospitals of a semi-permanent nature, and has been contributed by Mr. John Wilson, F.R.I.B.A., Architectural Inspector of the Local Government Board for Scotland. This chapter gives much valuable information as regards selection of site, methods of construction, and materials to be used in buildings of a temporary nature, and the data and information given will be found to be of considerable service to those engaged in the designing of buildings of this description.

The concluding chapter deals with the provision for nervous diseases and incipient mental diseases. The author outlines in a general way the nature and curative treatment of these diseases, and describes the type of plan and arrangements found to be most suitable for the special treatment of such cases.

In addition to the plans already referred to, the appendix contains several excellent lithographic plates showing plans of an outpatients' department, hospital laundry, and nurses' home, all to a good scale and clearly drawn.

The text is well printed, and the numerous excellent illustrations add materially to the value of the book. The entire work has been ably conceived, and is lucid and thorough; it is undoubtedly the most practical and useful work on hospital planning and

construction we have, and is well worthy the careful study of all architects entrusted with the designing of such buildings.

JAMES MILLER [F.R.A.S.A.  
Glasgow.]

#### REINFORCED CONCRETE CONSTRUCTION.

*L.C.C. Regulations relating to Reinforced Concrete. With Explanatory Notes by Ewart S. Andrews, B.Sc.Eng., M.C.I. 70 pp., cr. 8s. Lond. 1916. Price 2s. 6d. net. [B. T. Batsford, Ltd., 94 High Holborn, W.C.]*

The Regulations made by the London County Council with respect to the construction of buildings wholly or partly of reinforced concrete after allowance by the Local Government Board, came into force on the 1st January last, so that this publication is timely. The Regulations have been several years in preparation, and now the War and its after-effects may be expected to retard experience of their operation in practice, though if the Regulations fulfil the purpose which they are intended to serve of enabling advantage to be taken of the useful qualities of reinforced concrete construction, it may prove that the need for rigid economy which the War has brought will encourage its use as against other and older methods of construction. The relief given is a real one, for the Regulations will enable the erection of structures of lesser weight, of greater floor area, and of superior day-lighting. That is to say, the walls can be reduced in thickness even to 4 inches, while the window openings can be increased from one-half to two-thirds of the wall area : though why even this last limit should be set is not apparent, as owing to the walls being merely panels there is no constructional necessity for any limit, and, seeing that daylight is so important in city buildings, it seems a pity to impose unnecessary restrictions. Fire resistance can hardly be the reason, for we have means of protection by metal glazing and automatic rolling shutters. It is surmised that the limitation arises from some mistaken zeal as to aesthetic treatment following upon some resolution as to areas of openings in walls suggested by the International Congress of Architects in years gone by, which ideas have long since been realised to be fatuous by architects of discernment. It seems regrettable that we who need light to add to the efficiency of our office and factory buildings, and have been taught by medical science the hygienic value of sunlight, should be prevented by official regulations from producing buildings as light and graceful as many of the famous examples of Gothic architecture of the Middle Ages.

The Regulations for Reinforced Concrete are the most scientific production we have yet had in Britain in the way of building law and will require considerable engineering skill to interpret them in practice. Mr. Andrews' notes will therefore be all the more valuable. One would like him to go more into detail, though the manner in which he has managed to make himself clear in a few words is remarkable.

The purpose of criticism should be to add something useful, and therefore a few discrepancies are pointed

out instead of merely repeating what the author has well said or lauding what well deserves praise.

On p. 41, under items 14 and 15, the reference should be to Regulations 42 and 43, while as regards item 18 Mr. Andrews' interpretation is very likely correct, though the writer would prefer to interpret it only to mean that concentrated loads may be considered as distributed over the larger area as demonstrated by Mr. Andrews, but that this should only affect the calculation of the bending moments—namely, by distributing the load on a greater portion of the span—and should not determine the moment of resistance in slabs which would be derived from a much greater breadth, as has been disclosed by tests.

The diagram on p. 44 has the words "long" and "short" transposed in the side margins.

On p. 47 Mr. Andrews remarks that the term "web" of a beam is not quite clear. His explanation, it is thought, is the right one.

On p. 48, in demonstrating the effect of haunching in reducing the headroom, Mr. Andrews is not quite fair to the regulation, because he has not deducted the width of the pillar, nor need he put a splay at more than 30 degrees.

It is to be regretted that Mr. Andrews is not more careful in respect to symbols and notation. In the Regulations it is expressly defined that Q represents "qualifier," yet on p. 50 the author irrationally calls it "the resistance modulus." He might as well talk of *b* as the width and *d* as the height. Again, on p. 56, whereas the Regulations define *b* as the breadth of the slab acting as the flange of a tee-beam, Mr. Andrews unnecessarily imports the symbol *b*, without explanation. Sometimes, too, he uses the regulation B for "bending moment" and at other times B.M.

The numerical example on p. 60 contains a slip in working in respect to the computation of the safe bending moment where 60 should be 48, which affects the result.

Mr. Andrews makes the remark at the end of p. 64 that the Regulations reward us for our trouble in calculating the radius of gyration. That is only so when a large percentage of vertical reinforcement is employed ; in most ordinary calculations, unfortunately, they do the reverse.

An index, which is not the official one, is included at the end, and it is only necessary to remark that the writer thinks both the author's and the official indices exhibit plenty of room for improvement.

Mr. Andrews has included a number of diagrams to facilitate calculations, and his notes should prove distinctly valuable to architects in enabling them to check designs and generally keep an observant eye upon the work of the specialist designer.

H. KEMPTON DYSON.

#### Books Received.

The History and Evolution of the Dome in Persia. By K. A. C. Creswell. Reprinted from the *Indian Antiquary*. 4o. Bombay 1915. [British India Press, Mazgaon, Bombay.]



9 CONDUIT STREET, LONDON, W., 1st April 1916.

### CHRONICLE.

#### R.I.B.A. Record of Honour : Twenty-sixth List.

##### *Killed in Action.*

PHILLIPS, LOUIS AUGUSTUS [Associate], Sergeant, Public Schools and Universities Bn., Royal Fusiliers. Killed in action in France on 14th March.

Sergeant Phillips served his articles with Messrs. Habershon and Fawcett, architects, of Lemport and Cardiff, and was afterwards assistant to Mr. John F. Groves [F.], architect to the Tredegar Estate, Newport, Mon. He was elected Associate and started practice in 1907. He was a fine all-round athlete, but will be remembered best as a Rugby Football international player. He represented Wales against England and Ireland in 1900 and against Scotland in 1900-1. Taking up golf he won the Welsh Amateur Championship at Porthcawl in 1912. He was also a Welsh international water-polo player.

##### *Award for Distinguished Conduct.*

SOWERBY, FRANK DOUGLAS [Student], 2nd Lieut., 4th Hussars, has been awarded the Cross of Chevalier of the Legion of Honour for distinguished conduct in action.

##### *Serving with the Forces.*

The following is the Twenty-sixth List of Members, Licentiates, and Students R.I.B.A., serving with H.M. Forces, the total to date being 57 Fellows, 423 Associates, 225 Licentiates, and 271 Students :—

##### FELLOWS.

Pollard, Arthur : Major, 5th Bn. West Yorks Regt.  
Roberts, Haydn P. : Artists' O.T.C. Engineering Section.

##### ASSOCIATES.

Clark, W. Llewellyn : 2nd Lieut. Royal Flying Corps.  
Gribbon, B. R. : 3rd Bn. Northumberland Fusiliers.  
Osborne, Frank J. : Artists' Rifles O.T.C.  
Owen, Geoffrey : Cadet, 2nd Artists' Rifles O.T.C.  
Runton, Percy T. : Lieut., Reserve of Officers.

##### LICENTIATES.

Farrow, J. W. H. : 2nd Regt. South African Infantry.  
Foster, W. T. B. : Lieut., Staff for R.E. Services.  
Highmoor, S. G. : 2nd Lieut., 21st Bn. Durham Light Infantry.  
Mettham, J. A. : Lieut., R.E.  
Samson, H. O. : Lieut., Territorial Force Reserve.

##### STUDENTS.

Aitchison, Harold P. R. : Artists' Rifles.  
Stobart, F. R. : 151st Co. Royal Garrison Artillery.

### *Promotions.*

Mr. H. E. Mathews [A.], who as a "Territorial" was called up when war broke out and joined the 5th Bn. Sherwood Foresters, has since been promoted Captain, and now Major, attached to the Headquarters Staff, London.

Mr. H. S. Besant [A.], who enlisted in February, 1915, as a Sapper in the Royal Engineers, and after attaining the rank of Sergeant was given a commission as Second Lieutenant in the Special Reserve and attached to the Queen's Own Royal West Kent Regiment, has been transferred to the Royal Engineers.

Mr. James J. S. Naylor [A.], of the "A" Battery, H.A.C., has been granted a commission as Sub-Lieutenant, R.N.V.R. Yacht Patrol.

Lieut. A. F. C. Bentley [Licentiate] has been promoted to Captain, Commanding 3/1st High. Div. Amm. Col., R.F.A.

### *Charing Cross Bridge.*

In the House of Lords on the 22nd March the adjourned motion for the second reading of the South-Eastern and London, Chatham, and Dover Railway Bill was agreed to.

THE EARL OF PLYMOUTH moved an instruction to the Committee to whom the Bill will be referred to take into consideration the requirements of the traffic over the river at Charing Cross and the effect which the Bill will have upon them, and to hear evidence from the Royal Institute of British Architects, the London Society, and others on the treatment generally of the very important part of London affected.

VISCOUNT CHILSTON, on behalf of the promoters of the Bill, said they would welcome any assistance which could be given them in beautifying the structure. He pointed out that the present bridge was for railway and foot passenger traffic only, and suggested that to authorise the construction of a bridge for traffic of all kinds would be beyond the scope of the measure.—Instruction agreed to.

### *Proposed Central Organisation of Trade Interests.*

Sir John Burnet, R.S.A., Vice-President, and Mr. E. Guy Dawber, Hon. Secretary, were appointed by the Council to act as representatives of the R.I.B.A. at a meeting held under the auspices of the Institute of Industry at the Savoy Hotel on the 30th March, to consider suggestions put forward by Sir Edward Carson for the creation of a strong Central Organisation of Trade Interests.

### *Postponement of R.I.B.A. Prizes and Studentships 1917.*

On the recommendation of the Board of Architectural Education, the Council have postponed the Competitions for the R.I.B.A. Prizes and Studentships 1917. Candidates who under the age limit were eligible in 1915 and 1916 will be considered eligible to take part in these Competitions when they are next held.

### *Architects and the Public.*

A campaign of enlightenment regarding the value of an architect's services, and his proper relation to the public, is being carried on by the American Institute of Architects and its branches in all sections of the United States. The Iowa Chapter has been particularly active. Among other educational methods

employed by this body is "A Circular of Information and Suggestion," now in its fourth edition and distributed among persons interested in building operations. This document contains a brief outline of what are termed vital elements in connection with all building activities. It explains the architect's functions and status as a professional man, and discusses the considerations that should properly influence a client in his selection of an architect. The unwisdom of conducting a competition under any but special conditions is made clear, and the method of procedure when a competition cannot be avoided is also set forth. Advice is given clients regarding the treatment they should accord their architects after engaging them. The architect once selected should be relied upon and should have the employer's complete confidence in order to be in a position to produce the best results. In pointing out the danger of his being misled if the employer accords too great weight to the criticisms and suggestions of well-meaning but aesthetically untrained friends and neighbours, the employer's attention is directed to J. G. Holland's lines :

Can you tell me why  
Men with a taste for art in finest forms  
Cherish the fancy that they may become,  
Or are, Art's masters ? You shall see a man  
Who never drew a line nor struck an arc  
Direct an architect, and spoil his work,  
Because, forsooth, he likes a tasteful house !  
He likes a muffin, but he does not go  
Into his kitchen to instruct his cook ;  
Nay, that were insult. He admires fine clothes,  
But trusts his tailor. Only in those arts  
Which issue from creative potencies  
Does his conceit engage him.

The circular concludes with a statement of the objects of the American Institute of Architects and an offer by the Iowa Chapter to furnish any desired information or assistance to persons interested in the subjects discussed. Educational matter of this character is published by the Central New York Chapter in the advertisement pages of the local papers.

#### To Architects on Service Abroad.

Mr. Percy S. Worthington [F.] would be glad to hear from any architects on active service who have made sketches and notes of interest in the countries where they are serving, and would be willing to lend them to show at an Exhibition of drawings of Belgian subjects, proposed to be held at the City Art Gallery, Manchester. Mr. Worthington's address is Lombard Chambers, 46 Brown Street, Manchester.

#### Chadwick Public Lectures.

A lecture, illustrated by plans and lantern slides, on Emergency Military Hospital Construction will be given by Mr. A. Saxon Snell [F.], on Thursday, 6th April, at 8 p.m., at the Royal Sanitary Institute, 90 Buckingham Palace Road, S.W. The Chair will be taken by Sir Maurice Fitzmaurice. Admission free.

#### THE LATE ROBERT COCHRANE, LL.D., I.S.O., F.S.A., F.R.I.B.A.

The death of Dr. Robert Cochrane, which took place at his residence, 17 Highfield Road, Dublin, on 17th ult., in his 71st year, removes one of the most able and respected members of the architectural profession in Ireland. He had been in failing health for a considerable time past, and during the last year had gradually become weaker, though it was not thought that the end was so near.

Dr. Cochrane, who was born in 1846, was the son of the late Hugh W. Cochrane, of County Down, who came of an ancient Scot.-Danish family settled in Ireland in the 17th century. He was married to Ethel Mary Sarah, daughter of George Hawken, a grandson of George Carew, of Llanteglos, Cornwall, who was the eighteenth in direct descent from King Edward I. and Queen Eleanor.

Dr. Cochrane was educated at Queen's College, Belfast, and was articled to the late Henry Smyth, County Surveyor of Down. He practised as an architect until 1874, when he joined the Architectural Department of the Board of Public Works in Ireland. He retired as Principal Surveyor in 1909. For a good many years he was H.M. Inspector of Ancient and National Monuments in Ireland. He was President of the Royal Society of the Antiquaries of Ireland 1912, and President of the Institution of the Civil Engineers of Ireland for two terms, 1904-6, a Vice-President of the Cambrian Archaeological Association, Honorary Corresponding Member of the Numismatic and Antiquarian Society of Philadelphia, Honorary Member of the Isle of Man National Historical Society, Fellow of the Société des Antiquaires du Nord, and a Member of the Council of the Royal Irish Academy. He was Joint Honorary Treasurer of the George Petrie Memorial Fund, and was mainly responsible for the design of the Celtic monument erected over the grave of Petrie, the greatest of Irish antiquaries, in Mount Jerome Cemetery, Dublin. He was a Doctor of Laws, *honoris causa*, of the Royal University of Ireland. He had been a Fellow of the Royal Institute of the Architects of Ireland since 1878. In 1892 he was elected a Fellow of the Royal Institute of British Architects, and retired two years ago.

During his long connection with the Office of Public Works in Ireland, which he entered as Assistant Surveyor, rising to be Principal Surveyor, he became responsible for the design or reconstruction of many important public buildings throughout the country, including the post offices at Belfast and at Lurgan, and for Sections I. and II. of the reconstruction scheme of the General Post Office, Dublin. He was also architect of important and extensive additions to the Queen's College, Belfast. An old member of the Institution of the Civil Engineers of Ireland, he was for many years a member of the Council. He took a very warm interest in the welfare of the institution, which owed much to his long service and wise counsel. Al-

though his practice was of an architectural character, he was chosen as President for two successive terms.

In the relations of his official life he was distinguished by a marked urbanity and kindness, as every architect who was brought into contact with him in connection with building works to be sanctioned by the Board will recall with gratitude. His views and ideas in the matter of the design and building construction of schools, residences, etc., so submitted to him were marked by practical common sense, mingled with a courteous and considerate regard for his professional brethren on whose work he had thus to pass judgment. He was ever ready to be helpful, and to smooth away difficulties arising out of official routine or otherwise.

It is for his valuable labours in connection with Irish antiquities and the study of early and mediæval Irish architecture that he will be best remembered. He was a careful student and frequent writer on these subjects. Amongst his principal publications were :—*The Antiquities of the Western Islands of Scotland*, *The Ecclesiastical Antiquities of Howth*, *The Ancient Monuments of the County of Cork*, and numerous contributions to the *Journal of the Royal Society of Antiquaries, Ireland*, *Archæologia Cambrensis*, and other archaeological, architectural, and scientific publications. His work on the monuments of the County Cork was an effort to initiate a classified scientific record of the ancient remains of each county, after the manner of the "Ordnance Survey Letters," compiled under Sir Thomas Lareom's scheme in connection with the Ordnance Survey of Ireland. Dr. Cochrane had hoped to see this effort form the nucleus of an attempt to do a work now being so admirably performed for England, Scotland and Wales by the Royal Commissions on Ancient Monuments. The advantage of a Royal Commission on these lines has, unfortunately, been denied to Ireland. One of the results which Dr. Cochrane had hoped for from the appointment of a Royal Commission for Ireland was the compilation of a scientific record of all the remains of any importance in the country, the existing lists, though voluminous, being neither accurate nor informative. He was largely instrumental in the preparation of a carefully reasoned case presented to the Government some time ago in support of this object : unfortunately without success.

Dr. Cochrane's series of illustrated annual reports to the Commissioners of Public Works on the Ancient and National Monuments of Ireland are most admirable accounts of his labours in their preservation, and will become indispensable to the student of Irish architecture. He brought to his task the essential qualifications of a trained architect and an antiquary of scholarly attainments. The methods he pursued commended themselves to every Irish antiquary of eminence. It is to be hoped that the work he so successfully carried on may be continued in the same spirit and with the same care and scholarship.

His work on behalf of the Royal Society of Antiquaries of Ireland was of scarcely less importance.

For eighteen years he acted as Honorary Secretary (1889-1907), becoming President in the latter year. At the time of his appointment as Honorary Secretary the Society (which is one of the oldest in the kingdom) had declined in numbers and in influence. With characteristic energy he undertook the task of building it up again, and succeeded so well that when he relinquished the post the society had become numerically the most important antiquarian body in the kingdom and had attained a position of influence higher than it ever before occupied. For many years he acted as Editor of its publications. R. M. BUTLER [F.]

## CORRESPONDENCE.

**Volunteer Corps : Appeal for Recruits.**

4th Battalion Central London Regiment Volunteers,  
Chester House, Ecclestone Place, S.W. : 18 March 1916.

To the Editor, JOURNAL R.I.B.A.—

SIR,—Now that the Volunteer Corps have secured recognition by the War Office, it is most necessary that their ranks should be augmented as much as possible in order that they may efficiently fill the place which will be assigned to them. I appeal, therefore, through the hospitality of your columns to every active man not at present in the fighting forces of the Crown to join one of the Volunteer Corps for the purpose of assisting in Home Defence and relieving other forces now stationed in England.

Appeal is specially made to (1) Men who have been accepted for clerical work and have been put back ; (2) Men over or under military age ; (3) Those who may have dropped out at a time when it seemed Recognition might be withheld, and (4) Men rejected for slight physical defects.

From personal experience I can assure the older men that no demands will be made upon them that are not within their powers and that do not make them better men physically and mentally. Lord Roberts so often told us that it is the duty of every fit man to learn to shoot and become efficient in drill, and this can be done in a comparatively short time without interference with business and other duties.

Our Battalion offers excellent facilities for London men, the Headquarters being within a few yards of Victoria Station. We have a fine Drill Hall, lecture room, common room with canteen, rifle range, armoury, etc. In addition to the usual infantry training we offer physical drill, musketry, school of arms, lectures, and practical instruction in field engineering, entrenching, bridging, etc. The Battalion is now engaged at week-ends upon the entrenchments in connection with the Defence of London. Week-end camps are being held and a Battalion camp has been arranged for Easter on the North Downs, near the trenches.

The Battalion Sergt.-Major is at Headquarters every day for the purpose of receiving recruits.—Yours faithfully, EDWD. GREENOP, Hon. Sec.

**The Architecture of Robert Adam.**

*Victoria Mansions, 28 Victoria Street, Westminster, S.W.  
To the Editor, JOURNAL R.I.B.A.,—*

SIR,—A friend has drawn my attention to the note in your last issue regarding Messrs. Batsford's production of a book on Robert Adam. The prospectus upon which this note is no doubt based would appear to be rather inadvertently worded, and negligent of the enterprise, and zeal, with which during the past three years *Country Life* have been illustrating all of those works described as "well-known houses not hitherto illustrated." In all they have published, since April 1913, when Shardeloes, hitherto regarded as Adam's first house, appeared, no fewer than thirty-three articles dealing with Adam work in England and Scotland. Of the works quoted in your list as "unpublished," which are authentic Adam, there are only two in fact which have not yet appeared in their pages. These, together with an amount of matter of which the instalments already given are only a third, are held over for publication in book form, as already announced at the inception of the scheme. While the war is in progress it has been judged impossible to fulfil this promise, but I think it is only due to *Country Life* to recognise the remarkable series of very full illustrations of Adam work both known, and unknown hitherto, which have appeared, and are continuing to appear, in their pages.—Your obedient servant,

ARTHUR T. BOLTON [F.]

**ALLIED SOCIETIES.****New Zealand Institute of Architects.**

The Annual Report of the Council of the New Zealand Institute of Architects, presented at the Annual Meeting of the Council held 30th November last, states that the membership has increased from 246 in 1914 to 315 in 1915. Twenty-seven members are serving with the Forces. The Council report that, realising the importance of ensuring that in future all architects admitted to the Institute should be well educated, a great amount of consideration has been given to the question of an educational scheme, and of the examinations to which that scheme leads. As an examining body it has laid down a scheme of education and has stated what examinations must be passed in order to qualify for membership. The work of encouraging and developing and carrying out the scheme has to be left in the hands of the various Branches. The scheme is such as any fairly well-educated youth ought to pass after about four years of study. The Council regard this as a minimum, and the hope is expressed that many students will be ambitious enough to work for the degree in Architecture which has been formulated by the University of New Zealand. It is hoped also that one of the University Colleges of New Zealand will see its way in the near future to establish a Chair of Architecture.

A motion that the Institute should donate a portion of its Funds towards a Chair of Architecture was referred to the Finance Committee.

A letter was read from the Director of the Wellington Technical College setting out a syllabus of training and examination which could be given at his College as a full and satisfactory course to qualify for the Institute's Examination.

On the motion of Mr. Hurst Seager [F.] of Canterbury, N.Z., it was resolved, "That the Prime Minister of the Dominion be requested that for the future all important public buildings be made open to public competition under conditions based

upon the gazetted regulations of the Institute." It was further resolved, on Mr. Seager's motion, "That it be regarded as the practice of the Institute for architects to open all tenders, make a list thereof, and communicate them to the client before making the amounts known to the tenderers."

**MINUTES.**

At a Special General Meeting, held Monday, 27th March, 1916, at 4.30 p.m.—Present : Mr. Ernest Newton, A.R.A., President, in the chair ; Mr. E. Guy Dawber, Hon. Secretary, 44 Fellows (including 15 members of the Council), and 5 Associates (including 2 members of the Council)—the Minutes of the Special General Meeting held 13th March having been published were taken as read and signed as correct.

The Hon. Secretary announced that Louis Augustus Phillips, Sergeant in the Public Schools Battalion, Royal Fusiliers, Associate, elected 1907, had been killed in action in France on the 14th March, and it was resolved that the deep regrets of the Institute for his loss be entered on the Minutes, and that a message of sympathy and condolence be forwarded to his near relatives.

The decease was also announced of Frederick William Lacey (Bournemouth), Fellow, elected 1898 ; Edward John Woods (Adelaide), Fellow, elected 1892 ; Harry Dawber Holland (Wigan), Associate, elected 1914 ; and Herbert Sydney Rhodes (Sydney, N.S.W.), Licentiate.

The decease was further announced of Charles Hadfield, elected Associate in 1863, Fellow 1872-1913, Member of Council representing the Sheffield Society of Architects 1895-97 ; and of Robert Cochrane, LL.D., I.S.O., F.S.A. (Dublin), Fellow 1892-1914 ; and it was resolved that a vote of sympathy and condolence be passed to their relatives.

The President announced that the Meeting was summoned in accordance with the Charter and By-laws to confirm the Resolution passed at the Special General Meeting of the 13th March—viz. :—

"That, in accordance with the provisions of Clause 33 of the Charter, application be made to the Privy Council to sanction the suspension of the By-laws governing the annual election of the Council, the Standing Committees and the Hon. Auditors, so that the Council, the Standing Committees, and the Hon. Auditors elected in June 1915 shall remain in office until the 30th June 1917."

On the motion of the President, seconded by the Hon. Secretary, it was resolved unanimously that the Resolution be confirmed.

The proceedings terminated at 4.45 p.m.

**NOTICES.****Licentiates and the Fellowship.**

The next Examination of Licentiates desiring to qualify for candidature as Fellows will take place in July. Applications for admission must be sent in before the end of May. Full particulars may be obtained from the Secretary.

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